Received
JUN 12 2012
Air Quality Division

#15502
Revision 3

Texas Commission on Environmental Quality

Use Determination for Pollution Control Property Application

A person seeking a use determination must complete this application form. For assistance in completing the application form please refer to the *Instructions for Use Determination for Pollution Control Property Application Form TCEQ-00611*, as well as the rules governing the Tax Relief Program in Title 30 Texas Administrative Code Chapter 17 (30 TAC 17). Information relating to completing this application form is also available in the TCEQ regulatory guidance document, *Property-Tax Exemptions for Pollution Control Property, RG-461*. For additional assistance, please call the Tax Relief Program at 512-239-4900.

You must supply information for each field of this application form unless otherwise noted.

Section 1. Eligibility

1. Is the property/equipment subject to any lease or lease-to-own agreement? Yes ☐ No ☒
2. Is the property/equipment used solely to manufacture or produce a product or provide a service that prevents, monitors, controls, or reduces air, water or land pollution?

   Yes ☐ No ☒
3. Was the property/equipment acquired, constructed, installed, or replaced before January 1, 1994? Yes ☐ No ☒

If the answer to any of these questions is '**Yes**', then the property/equipment is not eligible for a tax exemption under this program.

Section 2. General Information

1. What is the type of ownership of this facility?

   Corporation ☐ Limited Partner ☐ Other: Limited Liability Company
   Sole Proprietor ☐ Utility ☐
   Partnership ☐

2. Size of Company: Number of Employees

   1 to 99 ☒ 500 to 999 ☐ 2,000 to 4,999 ☐
   100 to 499 ☐ 1,000 to 1,999 ☐ 5,000 or more ☐

3. Business Description: (Briefly describe the type of business or activity at the facility)

   Apartment Complex

4. Provide the North American Industry Classification System (NAICS) six-digit code for this facility. 53110

Section 3. Type of Application and Fee

1. Select only one:

   Tier I – Fee: $150 ☒ Tier II – Fee: $1,000 ☐ Tier III – Fee: $2,500 ☐

2. Payment Information:

   Check/Money Order/Electronic Payment Receipt Number:
   Payment Type:
   Payment Amount:
   Name on payment:
   Total Amount:

NOTE: Enclose a check, money order to the TCEQ, or a copy of the ePay receipt along with the application to cover the required fee.

Section 4. Property/Equipment Owner Information

1. Company Name of Owner: Salado at Walnut Creek Partner, LLC
2. Mailing Address: 505 E. Huntland Drivee, Suite 530
3. City, State, Zip: Austin, Texas 78752
4. Customer Number (CN): CH603549452
5. Regulated Entity Number (RN):RN101228682
6. Is this property/equipment owned by the CN listed in Question 4? Yes ☒ No ☐

   If the answer is 'No,' please explain:
7. Is this property/equipment leased from a third party? Yes ☐ No ☒

   If the answer is 'Yes,' please explain:
8. Is this property/equipment operated by the RN listed in Question 5? Yes ☒ No ☐

   If the answer is 'No,' please explain:

Section 5. Name of Property/Equipment Operator (If different from Owner)

1. Company Name:
2. Mailing Address:
3. City, State, Zip:
4. Customer Number (CN):
5. Regulated Entity Number (RN):

Section 6. Physical Location of Property/Equipment

1. Name of Facility or Unit where the property/equipment is physically located: Salado at Walnut Creek Apartments
2. Type of Mfg. Process or Service: Closed remediated land fill
3. Street Address: 2104 E. Anderson Lane

4. City, State, Zip: Austin, Texas 78752

Section 7. Appraisal District with Taxing Authority

1. Appraisal District: Travis County
2. District Account Number(s): Property ID# 768727; Ref ID# 200007687270000

Section 8. Contact Name

1. Company Name: Grissom & Thompson, LLP
2. First Name of Contact: Donald
3. Last Name of Contact: Grissom
4. Salutation: Mr. ☒ Mrs. ☐ Ms. ☐ Dr. ☐ Other:
5. Title:
6. Mailing Address: 509 W. 12th Street
7. City, State, Zip: Austin, Texas 78701
8. Phone Number/Fax Number: 512-478-4059; 512-482-8410
9. Email Address: don@gandtlaw.com
10. Tracking Number (optional):

Section 9. Property/Equipment Description, Applicable Rule, and Environmental Benefit

For each piece, or each category, of pollution control property/equipment for which a use determination is being sought, answer the following questions.

Attach additional response sheets to the application for each piece of integrated pollution control property/equipment if a use determination is being sought for more than one (1) piece.

General Information

1. Name the property/equipment: Continuous emission moniters
2. Is the property/equipment used 100% as pollution control equipment? Yes ☒ No ☐

   If the answer is 'Yes,' explain how it was determined that the equipment is used 100% for pollution control: emission monitors, monitor emissions nothing else
3. Does the property/equipment generate a Marketable Product? Yes ☐ No ☒

   If the answer is 'Yes,' describe the marketable product:
4. What is the appropriate Tier I Table or Expedited Review List number? a-61
5. Is the property/equipment integrated pollution control equipment? Yes ☒ No ☐

   If the answer is 'No,' separate applications must be filed for each piece of property/equipment.
6. List applicable permit number(s) for the property/equipment:

Incremental Cost Difference

7. Is the Tier I Table percentage based on the incremental cost difference? Yes ☐ No ☒

   If the answer is 'Yes,' answer the following questions:

8. What is the cost of the new piece of property/equipment?
9. What is the cost of the comparable property/equipment?
10. How was the value of the comparable property/equipment calculated?

Property/Equipment Description

11. Describe the property/equipment. (What is it? Where is it? How is it used?) Continuous VOC emission monitors are hardwired into each individual apartment and constructed so that they may not be turned off

Applicable Rule

12. What adopted environmental rule or regulation is being met by the construction or installation of the property/equipment? The citation must be to the subsection level. SEE ATTACHED

Environmental Benefit

13. What is the anticipated environmental benefit related to the construction or installation of the property/equipment? alerts when methane gas levels reach a certain point

Section 10. Process Flow Diagram (Optional)

Attach documentation to the application showing a Process Flow Diagram for the property/equipment.

Section 11. Partial-Use Percentage Calculation

This section must be completed for all Tier III applications. Attach documentation to the application showing the calculations used to determine the partial-use percentage for the property/equipment.

Section 12. Property Categories and Costs

List each piece of property/equipment of integrated pollution control property/equipment for which a use determination is being sought.

Property/Equipment Name	Tier 1 Table No. or Expedited Review List No.	Use Percent	Estimated Dollar Value
Land:			
Property: Continuous emission monitors	a-61	100	$32,000
Property:			

4. City, State, Zip: Austin, Texas 78752

Section 7. Appraisal District with Taxing Authority

1. Appraisal District: Travis County
2. District Account Number(s): Property ID# 768727; Ref ID# 200007687270000

Section 8. Contact Name

1. Company Name: Grissom & Thompson, LLP
2. First Name of Contact: Donald
3. Last Name of Contact: Grissom
4. Salutation: Mr. ☒ Mrs. ☐ Ms. ☐ Dr. ☐ Other:
5. Title:
6. Mailing Address: 509 W. 12th Street
7. City, State, Zip: Austin, Texas 78701
8. Phone Number/Fax Number: 512-478-4059; 512-482-8410
9. Email Address: don@gandtlaw.com
10. Tracking Number (optional):

Section 9. Property/Equipment Description, Applicable Rule, and Environmental Benefit

For each piece, or each category, of pollution control property/equipment for which a use determination is being sought, answer the following questions.

Attach additional response sheets to the application for each piece of integrated pollution control property/equipment if a use determination is being sought for more than one (1) piece.

General Information

1. Name the property/equipment: Vapor Liquid Recovery equipment for fugitive emissions
2. Is the property/equipment used 100% as pollution control equipment? Yes ☒ No ☐

   If the answer is 'Yes,' explain how it was determined that the equipment is used 100% for pollution control: piping, pumps and fans with removal of fugitive emissions
3. Does the property/equipment generate a Marketable Product? Yes ☐ No ☒

   If the answer is 'Yes,' describe the marketable product:
4. What is the appropriate Tier I Table or Expedited Review List number? a-184
5. Is the property/equipment integrated pollution control equipment? Yes ☒ No ☐

   If the answer is 'No,' separate applications must be filed for each piece of property/equipment.
6. List applicable permit number(s) for the property/equipment:

Incremental Cost Difference

7. Is the Tier I Table percentage based on the incremental cost difference? Yes ☐ No ☒

   If the answer is 'Yes,' answer the following questions:

8. What is the cost of the new piece of property/equipment?
9. What is the cost of the comparable property/equipment?
10. How was the value of the comparable property/equipment calculated?

Property/Equipment Description

11. Describe the property/equipment. (What is it? Where is it? How is it used?) Piping and pumps associated with the capture and removal of fugitive methane emissions, site wide, SAVS 108 wells venting methane gas to a safe area.

Applicable Rule

12. What adopted environmental rule or regulation is being met by the construction or installation of the property/equipment? The citation must be to the subsection level. SEE ATTACHED

Environmental Benefit

13. What is the anticipated environmental benefit related to the construction or installation of the property/equipment? removes emissions and transports to and for release in a safe manner.

Section 10. Process Flow Diagram (Optional)

Attach documentation to the application showing a Process Flow Diagram for the property/equipment.

Section 11. Partial-Use Percentage Calculation

This section must be completed for all Tier III applications. Attach documentation to the application showing the calculations used to determine the partial-use percentage for the property/equipment.

Section 12. Property Categories and Costs

List each piece of property/equipment of integrated pollution control property/equipment for which a use determination is being sought.

Property/Equipment Name	Tier 1 Table No. or Expedited Review List No.	Use Percent	Estimated Dollar Value
Land:			
Property: Vapor/liquid recovery equipment for fugitive emissions	a-184	100	$276,000
Property:			

Application # 15502, Salado at Walnut Creek

Section 9:

Question Nos:

1. Name the Property/equipment: **Fugitive Emission Monitoring and control**

2. Is the property/equipment used 100% as pollution control equipment? **Yes**

   This property/equipment "The fugitive Emission Monitoring and control system" consists of three sub-systems of vapor/landfill gas monitoring wells (a total of 45 wells) that monitor the landfill gas off-site migration and monitor the performance of the soil gas extraction and control system, as well as the landfill vapor/gas pressure and methane concentration under the site. This system is 100% used for the pollution control purposes.

3. Does the property/equipment generate a Marketable Product? **No.**

4. What is the appropriate Tier I Table or Expedited Review List number? **S-13**

5. Is the property/equipment integrated pollution control equipment? **Yes**

Description of the Property/equipment: **Fugitive Emission Monitoring and control**

The fugitive Emission Monitoring and control system consists of three sub-systems:

1. Sentry Point triple screen Vapor/landfill gas monitoring wells which monitor the off-site migration of the landfill gas. Four Sentry landfill gas monitoring probes (GMPs) with triple screen to the depth of trash filled zones were installed at the border of the site between the Salado and the adjacent Promitory Point Apartment Complex (PPAC). Probes were installed at an approximate distance of 100 foot spacing.

2. Soil Vapor Monitoring wells (SVW-1 to SVW 26) sub-system, consists of twenty six ¾" Diameter wells that are installed in the open areas around and close to the SAGES vapor extraction system

to monitor the performance of the SAGES system and provide data for adjustment and control of the SAGES system.

3. In addition fifteen vapor/gas monitoring/vapor ventilation wells (VW-1 to VW-15) were installed at the locations with high soil gas concentrations, as determined by the Soil Resistivity study. These wells were used for measuring the landfill gas pressure and methane concentration under the site.

The Tier I designation of this property/equipment (system) is:

"S-13": "A monitoring device used to monitor or detect fugitive emissions from a waste management unit or ancillary equipment"

4. City, State, Zip: Austin, Texas 78752

Section 7. Appraisal District with Taxing Authority

1. Appraisal District: Travis County
2. District Account Number(s): Property ID# 768727; Ref ID# 200007687270000

Section 8. Contact Name

1. Company Name: Grissom & Thompson, LLP
2. First Name of Contact: Donald
3. Last Name of Contact: Grissom
4. Salutation: Mr. ☒ Mrs. ☐ Ms. ☐ Dr. ☐ Other:
5. Title:
6. Mailing Address: 509 W. 12th Street
7. City, State, Zip: Austin, Texas 78701
8. Phone Number/Fax Number: 512-478-4059; 512-482-8410
9. Email Address: don@gandtlaw.com
10. Tracking Number (optional):

Section 9. Property/Equipment Description, Applicable Rule, and Environmental Benefit

For each piece, or each category, of pollution control property/equipment for which a use determination is being sought, answer the following questions.

Attach additional response sheets to the application for each piece of integrated pollution control property/equipment if a use determination is being sought for more than one (1) piece.

General Information

1. Name the property/equipment: Fugitive emissions containment structures
2. Is the property/equipment used 100% as pollution control equipment? Yes ☒ No ☒

   If the answer is 'Yes,' explain how it was determined that the equipment is used 100% for pollution control:
3. Does the property/equipment generate a Marketable Product? Yes ☐ No ☒

   If the answer is 'Yes,' describe the marketable product:
4. What is the appropriate Tier I Table or Expedited Review List number? s-21
5. Is the property/equipment integrated pollution control equipment? Yes ☒ No ☐

   If the answer is 'No,' separate applications must be filed for each piece of property/equipment.
6. List applicable permit number(s) for the property/equipment:

Incremental Cost Difference

7. Is the Tier I Table percentage based on the incremental cost difference? Yes ☐ No ☒

   If the answer is 'Yes,' answer the following questions:

8. What is the cost of the new piece of property/equipment?
9. What is the cost of the comparable property/equipment?
10. How was the value of the comparable property/equipment calculated?

Property/Equipment Description

11. Describe the property/equipment. (What is it? Where is it? How is it used?) Structures used to contain, for monitoring purposes, emissions released from decomposing materials. 1st floor level of onsite buildings house pollution control equipment (continuous emission monitors) used to detect VOCs. Monitors must be in an enclosed space in to function and operate correctly, in order to protect residents within and above.

Applicable Rule

12. What adopted environmental rule or regulation is being met by the construction or installation of the property/equipment? The citation must be to the subsection level. SEE ATTACHED

Environmental Benefit

13. What is the anticipated environmental benefit related to the construction or installation of the property/equipment? allows the continuous emission monitors to perform their function

Section 10. Process Flow Diagram (Optional)

Attach documentation to the application showing a Process Flow Diagram for the property/equipment.

Section 11. Partial-Use Percentage Calculation

This section must be completed for all Tier III applications. Attach documentation to the application showing the calculations used to determine the partial-use percentage for the property/equipment.

Section 12. Property Categories and Costs

List each piece of property/equipment of integrated pollution control property/equipment for which a use determination is being sought.

Property/Equipment Name	Tier 1 Table No. or Expedited Review List No.	Use Percent	Estimated Dollar Value
Land:			
Property: fugitive emissions	s-21	100	$1,387,000

containment structures			
Property:			
Property:			
		Total:	$1,695,000.00

Attach additional response sheets to the application if more than three (3) pieces.

NOTE: Separate applications must be filed for each piece of nonintegrated pollution control property/equipment.

Section 13. Certification Signature

Must be signed by owner or designated representative.

By signing this application, I certify that I am duly authorized to submit this application form to the TCEQ and that the information supplied here is true and accurate to the best of my knowledge and belief.

Printed Name: Donald H. Grissom Date:

Signature: _____ 6/12/12

Title: Attorney

Company Name: Grissom & Thompson, LLP

Under Texas Penal Code 37.10, if you make a false statement on this application, you could receive a jail term of up to one year and a fine up to $2,000, or a prison term of two to 10 years and a fine of up to $5,000.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

May 11, 2012

Mr. Donald Grissom
Attorney
Grissom & Thompson, LLP
509 W. 12th St.
Austin, Texas 78701

Re: Notice of Technical Deficiency
Salado at Walnut Creek Partner, LLC
Watersbend Apartments
2104 East Anderson Lane
Austin (Travis County)
Regulated Entity Number: RN101228682
Customer Reference Number: CN603549452
Application Number: 15502

Dear Mr. Grissom:

This letter responds to Salado at Walnut Creek Partner, LLC's Application for Use Determination, received June 3, 2011, pursuant to the Texas Commission on Environmental Quality's (TCEQ) Tax Relief for Pollution Control Property Program for the Watersbend Apartments.

The TCEQ has conducted a technical review and has determined the information required in Title 30 Texas Administrative Code (TAC) §17.10 is incomplete for application #15502. Please revise the enclosed application to include the following information and include a copy of this letter with your response.

> Please explain the difference between the item listed as: "system of sloping concrete surfaces (including drains, sumps, and piping for the purpose of preventing leachate through collecting stormwater site-wide" on this application and on the identical listing on application 15306.

The TCEQ appreciates your response in this matter. The revised application must be submitted by June 13, 2012, to the TCEQ Tax Relief for Pollution Control Property Program, MC-110, P.O. Box 13087, Austin, Texas 78711-3087. Failure to submit a complete application, including the requested information, may result in your application being voided and the associated application fee being forfeited in accordance with 30 TAC §17.20(b).

If you have questions regarding this letter or need further assistance, please contact Ronald Hatlett of the Tax Relief for Pollution Control Property Program by telephone at (512) 239-6348, by e-mail at ronald.hatlett@tceq.texas.gov, or write to the Texas Commission on Environmental Quality, Tax Relief for Pollution Control Property Program, MC-110, P.O. Box 13087, Austin, Texas 78711-3087.

Sincerely,

cgoodi

Chance Goodin, Team Leader
Stationary Source Programs
Air Quality Division

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

January 12, 2012

Mr. Donald Grissom
Attorney
Grissom & Thompson, LLP
509 W. 12th St.
Austin, Texas 78701

Re: Notice of Technical Deficiency
Salado at Walnut Creek Partner, LLC
Watersbend Apartments
2104 East Anderson Lane
Austin (Travis County)
Regulated Entity Number: RN101228682
Customer Reference Number: CN603549452
Application Number: 15502

Dear Mr. Grissom:

This letter responds to Salado at Walnut Creek Partner, LLC's Application for Use Determination, received June 3, 2011, pursuant to the Texas Commission on Environmental Quality's (TCEQ) Tax Relief for Pollution Control Property Program for the Watersbend Apartments.

The TCEQ has conducted a technical review and has determined the information required in Title 30 Texas Administrative Code (TAC) §17.10 is incomplete for application #15502. Please revise the enclosed application to include the following information and include a copy of this letter with your response.

Issue 1 – Please complete sections of the application which were previously omitted. The omitted areas include Section 2, Questions 3 and 4; Section 4, Questions 7 and 8; and Section 6, Question 1.

Issue 2 – Rule citations must be to the rule currently in effect. Some of the citations on the application do not exist but presumably did in previous versions of the rule. For example, 30 TAC §330.960(b)(1)(C) and 30 TAC §330.957(l)(1)(C) do not exist. Please ensure all rule citations pertain to the current version of the rules which can be found at the following link http://info.sos.state.tx.us/pls/pub/readtac$ext.ViewTAC .

Issue 3 – Please provide relevant excerpts from the Voluntary Clean-Up Program Agreement (VCP). While a requirement in the VCP does not substitute for a valid rule citation, the VCP may provide more insight as to the terms of the conditional certificate.

Issue 4 – The response to an earlier deficiency letter contains the following description for alarms, "Fire alarms are installed in all apartment units on all floors of all buildings. However, these are not a part of pollution control system, but are part of the residential safety system." Tier I Table Number S4 specifically excludes fire alarms; therefore, these alarms are not eligible for exemption under the Tax Relief for Pollution Control Property Program. What is the justification for including controllers

and emergency generators in the equipment requested under Tier I Table Number S4? Please revise the application to remove items claimed under Tier I Table Number S4 that do not fit under Tier I Table Number S4. Furthermore, more detail is needed describing and quantifying the items claimed under Tier I Table Number S4.

The TCEQ appreciates your response in this matter. The revised application must be submitted by February 14, 2012, to the TCEQ Tax Relief for Pollution Control Property Program, MC-110, P.O. Box 13087, Austin, Texas 78711-3087. Failure to submit a complete application, including the requested information, may result in your application being voided and the associated application fee being forfeited in accordance with 30 TAC §17.20(b).

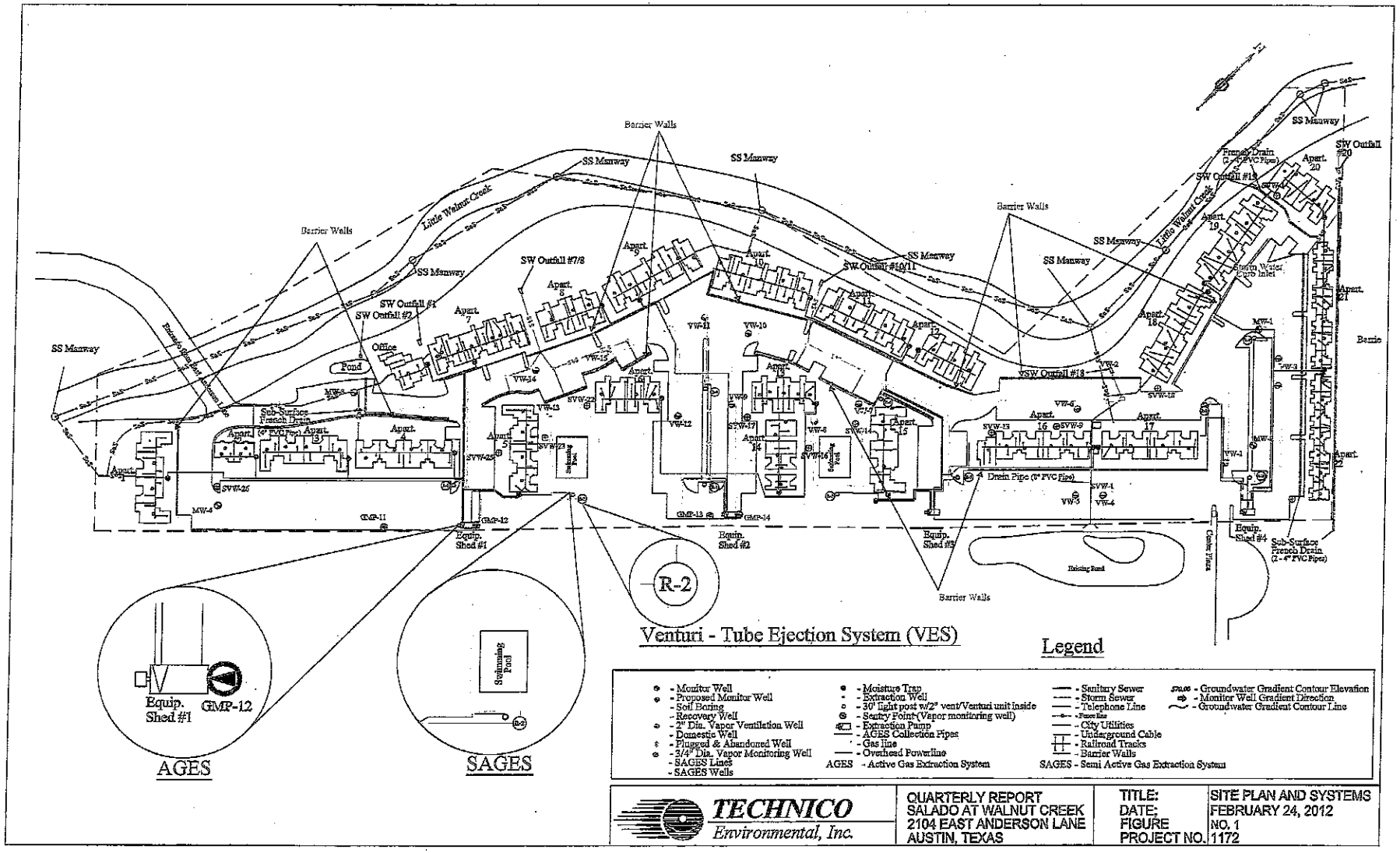
If you have questions regarding this letter or need further assistance, please contact Ronald Hatlett of the Tax Relief for Pollution Control Property Program by telephone at (512) 239-6348, by e-mail at ronald.hatlett@tceq.texas.gov, or write to the Texas Commission on Environmental Quality, Tax Relief for Pollution Control Property Program, MC-110, P.O. Box 13087, Austin, Texas 78711-3087.

Sincerely,

Chance Goodin, Team Leader
Stationary Source Programs
Air Quality Division

CG/RH

Enclosure



TECHNICO Environmental, Inc.	QUARTERLY REPORT SALADO AT WALNUT CREEK 2104 EAST ANDERSON LANE AUSTIN, TEXAS	TITLE: DATE: FIGURE PROJECT NO.	SITE PLAN AND SYSTEMS FEBRUARY 24, 2012 NO. 1 1172

TECHNICO
Environmental, Inc.

VCP #301

RESPONSE ACTION COMPLETION REPORT

FOR

Watersbend Apartments
At Little Walnut Creek & Highway 183

Prepared for

Rio Vista Apartments Partners

By

Technico Environmental, Inc.
2351 W. Northwest Highway
Suite 2320
Dallas, Texas 75220

Tel (214) 357-7001
Fax (214) 357-7402

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Protecting Texas by Reducing and Preventing Pollution

November 24, 1999

Rio Vista Partners, Ltd.
c/o Sohrab Kourosh, P.E., Ph.D.
Senior Environmental Scientist
TECHNICO, Inc.
2351 West Highway, Suite 2320
Dallas, TX 75220

Re: Watersbend Apartment Complex Phase -1B, Located at 2104 East Anderson Lane, Austin, Travis County; Voluntary Cleanup Program (VCP) No. 301

Dear Dr. Kourosh:

The Texas Natural Resource Conservation Commission (TNRCC) has reviewed the report entitled "Site Operation Manual" and "Request for Issuance of Conditional Certificate of Completion" as well as other requested information. The information provided in the reports demonstrate attainment of §330.5(a)(3) (General Prohibitions - endangerment to human health and the environment). Therefore, the TNRCC agrees that the partial response action area (PRAA) is suitable for use and issues the enclosed Conditional Certificate of Completion (CCOC) for the PRAA.

Please record and submit proof of filing the CCOC in the real property records of the county in which the site is located no later than 60 days from the date of this letter to my attention at the TNRCC, Voluntary Cleanup Section, mail code MC-221, at the letterhead address. You may contact me with any questions or comments you have at (512) 239-5872.

Sincerely,

for Mike Frew, Project Manager
Voluntary Cleanup Section
Remediation Division

MF/ts

Enclosures

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

VOLUNTARY CLEANUP PROGRAM
CONDITIONAL CERTIFICATE OF COMPLETION

As provided for in §361.609, Subchapter S, Solid Waste Disposal Act (SWDA), Texas Health and Safety Code.

I, JACQUELINE S. HARDEE, P.E., DIRECTOR OF THE REMEDIATION DIVISION, TEXAS NATURAL RESOURCE CONSERVATION COMMISSION, CERTIFY UNDER §361.609, SWDA, TEXAS HEALTH AND SAFETY CODE, THAT NECESSARY RESPONSE ACTIONS HAVE BEEN IMPLEMENTED FOR VCP NO. 301 AS OF OCTOBER 28, 1999 FOR THE TRACT OF LAND DESCRIBED IN EXHIBIT "A", BASED ON THE AFFIDAVIT OF IMPLEMENTATION OF RESPONSE ACTION, EXHIBIT "B" AND WHICH ARE FURTHER DESCRIBED IN THE APPROVED RESPONSE ACTION WORK PLAN FOR THE SITE AND INCLUDE POST-CLOSURE CARE (e.g., MAINTENANCE OF ENGINEERING CONTROLS, REMEDIATION SYSTEMS AND/OR USE OF NON-PERMANENT INSTITUTIONAL CONTROLS). AN APPLICANT WHO ON THE DATE OF APPLICATION SUBMITTAL WAS NOT A RESPONSIBLE PARTY UNDER §361.271 OR §361.275(g), SWDA AND ALL PERSONS WHO WERE NOT RESPONSIBLE PARTIES UNDER §361.271 OR §361.275(g), SWDA (e.g., FUTURE OWNERS, FUTURE LESSEES, FUTURE OPERATORS AND LENDERS) ON THE DATE OF ISSUANCE OF THIS CERTIFICATE ARE QUALIFIED TO OBTAIN THE PROTECTION FROM LIABILITY DESCRIBED IN §361.610, SUBCHAPTER S, SWDA PROVIDED THE APPLICANT OR FUTURE OWNERS ARE SATISFACTORILY MAINTAINING THE POST-CLOSURE CARE (e.g., MAINTENANCE OF ENGINEERING CONTROLS, REMEDIATION SYSTEMS AND/OR USE OF NON-PERMANENT INSTITUTIONAL CONTROLS) AS DESCRIBED IN EXHIBIT "B".

EXECUTED this 22nd *day of* November, *19* 99

Jacqueline S Hardee

Jacqueline S. Hardee, P.E., Director
Remediation Division

STATE OF TEXAS
TRAVIS COUNTY

BEFORE ME, on this the 22nd day of November personally appeared Jacqueline S. Hardee, P.E., Director, Remediation Division, of the Texas Natural Resource Conservation Commission, known to me to be the person and agent of said commission whose name is subscribed to the foregoing instrument and she acknowledged to me that she executed the same for the purposes and in the capacity therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the 22nd day of November, 1999

TAMARA M. SVJAGINTSEV
NOTARY PUBLIC
State of Texas
Comm. Exp. 06-10-2001

Tamara M. Svjagintsev
Notary Public in and for the State of Texas

FIELD NOTES
FOR

EXHIBIT 'A'

PHASE 1B - 2.337 ACRES

ALL OF THAT CERTAIN TRACT OR PARCEL OF LAND OUT OF THE WILLIS AVERY SURVEY NO. 81 IN THE CITY OF AUSTIN, TRAVIS COUNTY, TEXAS, BEING A PORTION OF LOT 2, HEADWAY 8-A, A SUBDIVISION IN THE CITY OF AUSTIN, TRAVIS COUNTY, TEXAS, ACCORDING TO THE MAP OR PLAT OF RECORD IN VOLUME 83, PAGES 158C-158D OF THE PLAT RECORDS OF TRAVIS COUNTY, TEXAS, THE HEREIN DESCRIBED TRACT BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING FOR REFERENCE at a 1/2 inch iron pin found in the North r.o.w. line of U.S. Highway 183, being at the Southeast corner of said Lot 2, Headway 8-A;

THENCE along the East line of said Lot 2, Headway 8-A, N 30°00'49" E for a distance of 386.36 feet to a 1/2 inch iron pin found and N 28°52'49" E for a distance of 113.50 feet to a 1/2 inch capped iron pin set for the Southeast corner and PLACE OF BEGINNING hereof;

THENCE along the South line of the herein described tract for the following courses:

N 59°42'00" W for a distance of 153.50 feet to a 1/2 inch capped iron pin set

S 61°00'00" W for a distance of 74.00 feet to a 1/2 inch capped iron pin set

N 81°27'00" W for a distance of 57.50 feet to a 1/2 inch capped iron pin set

N 24°44'00" W for a distance of 19.48 feet to a 1/2 inch capped iron pin set in the East line of that certain 3.820 acre tract of land described in Volume 9498, Page 632 of the Real Property Records of Travis County, Texas, for the Southwest corner hereof;

THENCE along the East line of said 3.820 acre tract for the following courses:

N 11°09'21" E for a distance of 50.57 feet to a 1/2 inch capped iron pin set

N 13°42'46" E for a distance of 50.97 feet to a 1/2 inch capped iron pin set

N 13°31'34" E for a distance of 45.02 feet to a 1/2 inch capped iron pin set

FIELD NOTES
FOR

PHASE 1B - 2.337 ACRES - Page Two

N 00°25'31" E for a distance of 51.44 feet to a 1/2 inch capped iron pin set

N 13°14'04" E for a distance of 51.15 feet to a 1/2 inch capped iron pin set

N 04°51'43" W for a distance of 57.90 feet to a 1/2 inch capped iron pin set

N 30°04'06" E for a distance of 49.39 feet to a 1/2 inch capped iron pin set

N 44°53'11" E for a distance of 32.50 feet to a 1/2 inch capped iron pin set for the Northwest corner hereof;

THENCE along the North line of the herein described tract, S 53°10'26" E for a distance of 78.80 feet to a p.k. nail set and S 60°33'00" E for a distance of 285.50 feet to a 1/2 inch capped iron pin set in the East line of said Lot 2, Headway 8-A. for the Northeast corner hereof;

THENCE along the East line of said Lot 2, Headway 8-A, S 28°52'49" W for a distance of 283.00 feet to the PLACE OF BEGINNING and containing 2.337 acres of land, more or less.

SURVEYED BY:
ROY D. SMITH SURVEYORS, P.C.

ROY D. SMITH
REGISTERED PROFESSIONAL SURVEYOR NO. 4094
October 13, 1994

STATE OF TEXAS
REGISTERED
ROY D. SMITH
4094
PROFESSIONAL
LAND SURVEYOR

Job No. 2305

EXHIBIT "B"
TEXAS NATURAL RESOURCE CONSERVATION COMMISSION
VOLUNTARY CLEANUP PROGRAM
AFFIDAVIT OF IMPLEMENTATION OF RESPONSE ACTION

Rio Vista Partners, Ltd. (the Applicant), has implemented response actions pursuant to Chapter 361, Subchapter S, SWDA, at the tract of land described in Exhibit "A" to this certificate that pertains to Salado at Walnut Creek - Phase 1B (formerly Watersbend Apartments), VCP No. 301 located at 2104 East Anderson Lane, in Austin (Travis County) Texas. The Site was owned by Rio Vista Apartments Ltd. at the time the application to participate in the Voluntary Cleanup Program was filed. The Applicant has submitted and received approval from the Texas Natural Resource Conservation Commission (TNRCC) Voluntary Cleanup Section on all plans and reports required by the Voluntary Cleanup Agreement for receipt of a Conditional Certificate of Completion. The plans and reports were prepared using a prudent degree of inquiry of the partial response action area consistent with accepted industry standards to identify all hazardous substances, waste and contaminated media of regulatory concern. The response actions will include the following post-closure care activities:

1. Operate and maintain the Active Gas Extraction System and Semi-Active Gas Extraction System pursuant to the Site Operating Manual - Salado at Walnut Creek dated August 1999.

2. Inspect and maintain the drainage system pursuant to the Site Operating Manual - Salado at Walnut Creek dated August 1999.

3. Inspect and maintain the cover of the landfill pursuant to the Site Operating Manual - Salado at Walnut Creek dated August 1999.

4. Inspect and maintain the methane gas alarms in each first floor apartment pursuant to the Site Operating Manual - Salado at Walnut Creek dated August 1999.

5. Conduct methane gas monitoring, inspections and report submittals pursuant to the schedule in the Site Operating Manual - Salado at Walnut Creek dated August 1999.

6. Sample any leachate seeps that reappear on the property, including seeps along the banks of Walnut Creek that are within the site property boundary, as soon as the property owner becomes aware of the seeps, and assess any possible adverse impact that leachate may be have on human health and the environment, pursuant to the Site Operating Manual - Salado at Walnut Creek dated August 1999 and take any action necessary to protect human health and the environment.

7. Comply with 30 Texas Administrative Code (TAC) §330 Subchapter T - Use of Land Over Closed Municipal Solid Waste Landfills.

The response actions for the partial response action area have achieved response action levels acceptable for Residential land use as determined by the standards of the TNRCC for a closed municipal waste landfill. Any other land use must be determined by issuance of a permit in accordance with 30 TAC §330 Subchapter T. The response action will eliminate, or reduce to the maximum extent practicable, substantial present or future risk to public health and safety, and the environment from releases and threatened releases of hazardous substances and/or contaminants at or from the partial response action area. The Applicant has not acquired this certificate of completion by fraud, misrepresentation, or knowing failure to disclose material information. Further information concerning the response action at this Site may be found in the response action work plan at the central office of the TNRCC under VCP No. 301.

The preceding is true and correct to the best of my knowledge and belief

Applicant

By: Rio Vista Partners, Ltd.
Print Name:_____

By: Santander Management, Inc., its General Partner

By: _____

STATE OF Texas
COUNTY OF Dallas

This instrument was acknowledged before me on November 9, 1999 by Daniel D. Boeckma, Vice President

Kristi McEuen
Notary Public in and for the State of Texas

KRISTI McEUEN
MY COMMISSION EXPIRES
September 22, 2002

Texas Natural Resource Conservation Commission

INTEROFFICE MEMORANDUM

To: Jacqueline S. Hardee, P.E., Director **Date:** November 15, 1999
Remediation Division

Thru: Charles Epperson, Section Manager
Voluntary Cleanup Section

Jay Carsten, Unit Manager
Voluntary Cleanup Section

From: Mike Frew, Project Manager
Voluntary Cleanup Section

Subject: Voluntary Cleanup Certificate of Completion (COC), Watersbend Apartments - Phase 1B, 2104 East Anderson Lane, Austin, TX; VCP No. 301

The Watersbend Apartment site is an Apartment Complex built over a closed municipal landfill in which the applicant, Rio Vista Partners, Ltd. has successfully completed voluntary cleanup activities under the terms of a voluntary cleanup agreement in accordance with §361.606 of the Solid Waste Disposal Act (SWDA), Texas Health and Safety Code. Cleanup activities included the installation of a site wide methane gas extraction system, a drainage system to prevent storm water infiltration, and maintenance of the cover of the landfill. It has been demonstrated that the cleanup activities at this site have attained the cleanup standards for §330.5(a)(3) (General Prohibitions - endangerment to human health and the environment). Therefore, the site is submitted to the Division Director with the recommendation to issue a COC for the site pursuant to §361.609 of the SWDA.

The COC is attached for your signature. Please contact me with any questions or comments regarding this site at extension 5872.

Attachments

Work Copy

TECHNICO
Environmental, Inc.

RESPONSE ACTION COMPLETION REPORT

FOR

Watersbend Apartments
At Little Walnut Creek & Highway 183

Prepared for

Rio Vista Apartments Partners

By

Technico Environmental, Inc.
2351 W. Northwest Highway
Suite 2320
Dallas, Texas 75220

Tel (214) 357-7001
Fax (214) 357-7402

TABLE OF CONTENTS

RESPONSE ACTION COMPLETION REPORT

Executive Summary

This Response Action Completion Report (RACR) is prepared by Technico Environmental Inc. (TEI), on behalf of our clients Rio Vista Apartments, LLC., for the site of the Watersbend Apartments Complex (WAC), as final component for fulfillment of the requirements of an application to the Texas Natural Resource Conservation Commission (TNRCC), Voluntary Cleanup Program (VCP), for remedial work and closure under the joint supervision of the Municipal Solid Waste Division and the VCP.

The Watersbend Apartment Complex, 2104 East Anderson Lane, Austin, Texas, is located on the east side of Highway 183, approximately 1/4 miles west of the intersection of Highway 290 and Highway 183. It was constructed in 1984 on 14.09 acres on the east bank of the Little Walnut Creek. It consists of 25 multi-story apartment buildings with a total of 358 apartment units and other ancillary buildings and facilities. The apartment buildings are built with wood frame on concrete slab with post tension reinforcing. The exterior walls are constructed with brick and wood siding, and the roof is built with Fiberglass composite shingles. The area map, the site sketch, the legal description of the property, the site plan, and some data and statistics pertaining to this Site are presented in Appendix A.

The WAC was housing approximately 1000 people between 1985 and summer of 1992, when subsequent to the discovery of methane gas within the Lower Explosive Limit (LEL) inside some of the first floor apartments, it was evacuated and closed by the State and Municipal authorities due to health hazard and safety concerns for the residents.

In September of 1994, the Rio Vista Apartments, L.C. purchased the Watersbend and initiated a series of negotiations with the Texas Natural Resource Conservation Commission (TNRCC), Texas Department of Health (TDH), Travis County, and the City of Austin, to arrange for remediation, rehabilitation, and rehabitation of the Watersbend Apartment complex with approval and under the supervision of the above organizations. A milestone in this process was the agreement between the TNRCC and the RVA for the RVA to develop a site specific "Comprehensive Assessment/Remediation Plan" (CARP) for the soil and gas in the part of the Brinkley-Anderson Landfill, which is the present site of the WAC. This RVA-proposed CARP was based on, and modeled after a CARP which was developed on July 6, 1993 by the TNRCC for the site of WAC, but was modified to incorporate the remedial objectives related to the RVA scope of work. The CARP was presented to TNRCC on March 23,1995, and was approved on April 19, 1995. The site was subsequently admitted to the TNRCC Voluntary Cleanup Program (VCP) for the remediation work to be performed under the joint supervision of the Municipal Solid Waste (MSW) and the VCP.

The approved CARP was implemented by Technico Environmental Inc., on behalf of the RVA. The implementation of the CARP and the related investigation which was aimed at characterization of the site of WAC, commenced in December 1995, and was completed in July, 1996. The Results of the investigations and site characterization of the WAC were reported to the TNRCC, Municipal Solid Waste, and Voluntary Cleanup Program, by Site Investigation Report (SIR) submitted on July 22, 1996. The SIR was approved by MSW and VCP in August, 1996, and RVA was subsequently "authorized to proceed with the preparation of the Remedial Action Work Plan (RAWP) detailing the design, execution plan, and implementation schedule for remediation work at WAC" .A copy of the CARP and the TNRCC approvals are presented in Appendix G.

The site-specific RAWP was submitted to the TNRCC, Municipal Solid Waste Division, and the

Voluntary Cleanup Program for their joint review, and was subsequently approved for implementation. The copies of the letters of approval by the MSW and the VCP dated November 15, and November 22, 1996 are presented in Appendix G. The letter of approval from the MSW, Waste Section, advised TEI "to proceed with the registration of the WAC in accordance with applicable parts of 30 Tex. Admin. Code Sections 330.951 thru 963 and the subsequent implementation of the RAWP. The letter of approval from the VCP emphasized "the importance of maintaining the cover or cap of the former landfill so as to prevent exposure of the landfill material to any future residents" and to monitor, sample, and analyze any leachate seeps that might "reappear along the banks of Walnut Creek within the site property boundary."

The implementation of the RAWP, and compilation of the Application for Registration commenced shortly after. The Application for Registration was submitted to TNRCC, Municipal Solid Waste Division, Permit Section in March 1997, and it was approved on May 28, 1997. The TNRCC assigned a Registration No. MSW-CR 65005 to this Site. A copy of the letter of approval of the Registration, and assignment of the registration number is presented in Appendix G.

The approved RAWP consists of the installation and operation of three remedial systems, these are:

1. Installation and operation of a site-wide Semi-Active Ventilation System (SAVS), consisting of 108 ventilation wells arranged in ten clusters, each complete with its piping and Venturi-tube Ejection System (VES). The wells were extended to the depth of the landfill to facilitate the venting of the landfill gas (LFG) generated in the soil under the site. The wells in each cluster are connected through a main ventilation pipe to the VES and a vertical vent equipped with a Flame Arrestor.

2. Installation and operation of a site-wide Active Gas Extraction System (AGES) for the under-slab

spaces of all the buildings on the site. Although the under-slab methane gas survey indicated that only 10 buildings contained methane gas in their under-slab space, due to the unpredictability of methane gas migration, all the buildings were equipped with an AGES.

The buildings of the site were divided into four groups. Each AGES is powered by a gas extraction unit consisting of an exhauster/blower with other ancillary components which is installed at a suitably located spot in each region and provides gas extraction for the under-slab spaces of the group of buildings located in that region. Buildings 1-4 are included in region 1, buildings 5-11 are in region 2, buildings 12-18 are in region 3, and buildings 19-25 are in region 4. The under-slab gas extraction system consists of a total of 506 vertical gas collection and fresh air supply tubes, the branch and main piping system, a moisture trap for each building, and the gas extraction units. The 386 extraction and 120 air supply tubes were designed and installed in such a way as to cover the whole under-slab space. The air supply necessary for operation of the VES (mentioned above) is provided by the exhaust air from the blowers of the AGES.

3. Installation and operation of a site-wide surface drainage control for elimination of leachate exposure at the site of WAC, a drain system to drain the rain water which was emerging as an spring on the north side, and a pond drainage system for draining the water, which will be collected in the north east pond after each rain or storm. Construction of a drainage channel for control of the runoff flow over the portion of adjacent property that is located between the PPAC and the WAC. Construction of a protection drain adjacent to the north drainage ditch to prevent the flow of flood water into the site.

The installation and operation of these systems will fulfill the objectives of the implementation of the RAWP , i.e., to protect the human health and the environment at the site from the adverse effects of the closed landfill. The test runs and system evaluations performed at this site indicate that the performance of the remediation system not only meets, but exceeds the design objectives of remediation project. The site is now ready for construction renovation and rehabitation.

RESPONSE ACTION COMPLETION REPORT

INTRODUCTION

This Response Action Completion Report (RACR) is prepared by Technico Environmental, Inc., (TEI) for the site of the Watersbend Apartment Complex (WAC), as final component for fulfillment of the requirements of an application to the Texas Natural Resource Conservation Commission (TNRCC), Voluntary Cleanup Program (VCP), for remedial work and closure under the joint supervision of the VCP and the Municipal Solid Waste Division.

The Watersbend Apartment Complex, 2104 East Anderson Lane, Austin, Texas, is located on the east side of Highway 183, approximately 1/4 mile west of the intersection of Highway 290 and Highway 183. It was constructed in 1984 on 14.09 acres on the east bank of Little Walnut Creek. It consists of 25 multi-story apartment buildings with a total of 358 apartment units and other ancillary buildings and facilities. The apartment buildings are built with a wood frame on a concrete slab with post tension reinforcing. The exterior walls are constructed with brick and wood siding, and the roof is built with fiberglass composite shingles. The area map, the site sketch, the legal description of the property, and some data and statistics pertaining to this site are presented in Appendix A.

The WAC was housing approximately 1000 people between 1985 and the summer of 1992, when subsequent to the discovery of methane gas within the Lower Explosive Limit inside some of the first floor apartments, it was evacuated and closed by the State and Municipal authorities due to health hazards and safety concerns.

The site of the WAC has been the subject of several environmental studies, investigations, and reports, both before and after construction, and before and after the evacuation and closure. The first available study is a master thesis presented to the Faculty of the Graduate School of the University of Texas at Austin in 1972, by Thomas P. Clark, titled," Hydrogeology, Geochemistry, and Public Health Aspects of Environmental Impairment At An Abandoned Landfill Near Austin, Texas". This thesis is a comprehensive study of a 50 acre abandoned landfill, known at that time as "Little Walnut Creek Landfill". The landfill covered both the east and west banks of Little Walnut Creek. Some excerpts and relevant parts of this thesis, and schematic map of the original landfill were presented in the Site Investigation Report (SIR) which was submitted to TNRCC in 1996.

The history of filling, and setting of this landfill as presented by Clark, indicate that the 50 acre site was originally operated as a county dump for a period of ten years before it was converted to a landfill in 1960. The site was operated by the City of Austin until 1968, when it was abandoned. Although no records were kept by the City about the method and process of filling, Clark reconstructed a generalized plan based on the extent of revegetation, degree of the observed decomposition, and other evidences such as newspapers found in different parts. According to this plan (presented in Figure 4, Appendix A) the operations were divided into three phases in three different sections of the original site. Section I, was used as a dump ground between the early 1950's to 1960. The northeast part of the area designated as Section II, was operated as a landfill between 1960 and 1966. Section III, which forms a major portion of the present site of the WAC was operated as a Municipal Landfill for two years between 1966 and 1968, when according to Clark, it was abandoned.

Clark's report indicated that Section III was filled from north to south. A thin layer of Burdit Marl, a gray to white, nodular, fine-grained clayey marl which covered the banks of Little Walnut Creek was stripped away, exposing the underlying Dessau Limestone. The refuse was placed directly over this limestone bedrock and then covered by the stripped marl or the marl excavated from quarries

to the north and east of Section III. The details of the geology and the impaired conditions of this landfill in 1972, as described by Clark, is presented in the above mentioned SIR.

The second report is, "Landfills In The Vicinity Of Austin, Texas", prepared by Underground Resource Management, Inc., for the City of Austin in 1984. This report covers 66 sites, with a very short description about each individual landfill. The subject site is referred to in this report as the "Brinkley-Anderson" landfill. The objectives of this report were to inspect the different active and abandoned landfill sites in the vicinity of Austin, identify the actual and potential health and safety hazards associated with each site, and recommend the necessary and proper mitigating actions or operating alternatives. This report does not provide any new information about the subject site. The only notable facts are that a leachate sample from the site was collected and analyzed, and the field visit for sample collection took place on June 1, 1984, when construction of the apartment complex had already begun. The report states that at that time a part of the site had been regarded, and waste below building slabs were removed, and replaced by compacted fill. The part of the report relevant to the subject site was presented in the SIR.

The third report is titled, "Phase I Environmental Site Assessment of Waters Bend Town Living", which was prepared by Earth Assessors of San Antonio, for Resolution Trust Corporation in 1991. This report, which is the first available site evaluation after the construction of the apartments, in addition to covering the previous studies, and performing leachate analysis, provided a site-wide soil gas measurement and investigation,. The soil gas investigation showed high concentrations of methane gas in two areas under the site, and raised the health hazards and safety concerns due to the possibility of methane gas migration into the apartments, and structural safety due to the differential settlement of the under-slab soil. The section of this report on soil gas investigation is presented in the SIR.

The fourth study for the site was performed in February of 1993, after the Watersbend Apartments

were evacuated and closed in July 1992, by the Texas Department of Health, Texas Water Commission, and the City of Austin, due to the immanent health and safety hazards created by the migration of methane gas into the living areas. This study, performed for the Resolution Trust Corporation, by Raba-Kistner-Brytest Consultants, Inc., reported on testing the air on the first floor apartments of the buildings, and installation of 26 soil vapor monitoring probes in different areas of the site for measurement of the soil gas pressure. The report indicated that the positive gas pressure existed in the landfill mass, that could cause gas migration into the apartments. The presence of methane gas in the living area of some of the apartments (although at low concentrations), indicated that a migration pathway existed. Excerpts of this report was presented in the above mentioned SIR.

In September of 1994, the Rio Vista Apartments, L.L.C. purchased the Watersbend notes and other related security interests held by the Resolution Trust Corporation. In anticipation of this purchase and the final acquisition of the site, the Rio Vista Apartments, L.L.C. (RVA), initiated in the spring of 1994, a series of negotiations with the Texas Natural Resource Conservation Commission (TNRCC), Texas Department of Health (TDH), Travis County, and the City of Austin, to arrange for remediation, rehabilitation, and rehabitation of the Watersbend Apartment Complex with approval and under the supervision of the above organizations.

The summary of these negotiations and the subsequent activities from the commencement in the spring of 1994, to August 1996, is presented in Appendix J, of the SIR. A milestone in this process was the agreement between the TNRCC and the RVA for the RVA to develop a Site-Specific "Comprehensive Assessment/Remediation Plan" (CARP) for the soil and gas in part of the Brinkley-Anderson Landfill, which is the present site of the WAC. This RVA-Proposed CARP was based on, and modeled after a CARP which was developed on July 6, 1993, by the TNRCC for the site of WAC, but was modified to incorporate the objectives of the CARP, as related to the RVA Scope of Work. The CARP was presented to the TNRCC on March 23,1995, and was approved on April 19, 1995. The site was subsequently admitted to the TNRCC's Voluntary Cleanup Program (VCP) for

the remediation work to be performed under the joint supervision of the Municipal Solid Waste (MSW) and the VCP.

The approved CARP was implemented by Technico Environmental, Inc., on behalf of the RVA. The implementation of the CARP and the related investigation which was aimed at characterization of the site of WAC, commenced in December 1995, and was completed in July 1996. The results of the investigations and site characterization were reported to the TNRCC, Municipal Solid Waste, and Voluntary Cleanup Program, by the Site Investigation Report (SIR) submitted on July 22, 1996. The SIR was approved by MSW and VCP in August , 1996, and RVA was subsequently "authorized to proceed with the preparation of the Remedial Action Work Plan (RAWP) detailing the design, execution plan, and implementation schedule for remediation work at WAC" .

The site-specific RAWP was submitted to the TNRCC, Municipal Solid Waste Division, and the Voluntary Cleanup Program for their joint review, and was subsequently approved for implementation. The copies of the letters of approval by the MSW and the VCP dated respectively, the November 15, and November 22, 1996 are presented in Appendix G. The letter of approval from the MSW, Waste Section, advised TEI "to proceed with the registration of the WAC in accordance with applicable parts of 30 Tex. Admin. Code Sections 330.951 to 330.963 and the subsequent implementation of the RAWP. The letter of approval from the VCP emphasized "the importance of maintaining the cover or cap of the former landfill so as to prevent exposure of the landfill material to any future residents" and to monitor, sample, and analyze any leachate seeps that might "reappear along the banks of Walnut Creek within the site property boundary."

The implementation of the RAWP, and compilation of the Application for Registration commenced in early 1997. The Application for Registration was submitted to TNRCC, Municipal Solid Waste Division, Permit Section in March 1997, and it was approved on May 28, 1997. The TNRCC assigned a Registration No. MSW-CR 65005 to this Site. A copy of the letter of approval of the

Registration, and assignment of the registration number is presented in Appendix G.

The CARP investigations provided the data and information necessary for a site characterization and development of a conceptual 3-dimensional model of the landfill. Based on the landfill gas generation characteristics, and the conceptual 3-dimensional model, and considering the architectural, and practical engineering elements, a Site-Specific Remedial Action Work Plan (SRAWP) was designed by TEI. This SRAWP consisted of the following main components.

1. Design and installation of ten Semi-Active Ventilation Systems (SAVS) in ten regions of the WAC site, each consisting of a cluster of wells, venting pipes, and a Venturi-Tube Ejection System (VES). The number of wells in clusters varied between 6-18 Wells.

2. Design and installation of an Active Gas Extraction System (AGES) for the under-slab spaces of all the buildings on the site. Although the under-slab methane gas survey indicated that only 10 buildings contained methane gas in their under-slab space, due to the unpredictability of the methane gas migration, all the buildings are equipped with an AGES.

   The buildings of the site were divided into four groups. An AGES was installed at a proper location in each region and provides gas extraction for the under-slab spaces of the group of buildings located in that region. Buildings 1-4 are included in Region 1, buildings 5-11 are in Region 2, buildings 12-18 in Region 3, and buildings 19-25 in Region 4.

3a. Design and installation of the pond drainage system for draining the water, which was collected in the north east pond after each rain or storm.

3b. Design and installation of a drainage system along the northern property boundary.

3c. Design and install a retaining wall between buildings 14 and 21 on the east bank of the creek.

TO DO:

4. Modification of the landscaping and drainage system in the areas of leachate seepage, to eliminate the leachate exposure problem.

The details of installation and operation of these systems are presented in the "Remedial project" section that follows.

> also need to install methane gas detectors when construction is finished.

REMEDIAL PROJECT

The specific objectives of RAWP were:

- Design and installation of a site-wide ventilation system for venting the Landfill Gas (LFG) generated in the soil and body of the landfill under the site.
- Design and installation of a gas extraction system for removal of the LFG migrated to and accumulated in the under-slab space of all buildings.
- Design and installation of a site-wide surface drainage control systems, including the adjacent property and the northeast pond, the north flood protection system, and the east bank retaining wall.

The remedial project is designed to achieve the above remedial objectives by utilizing the following systems:

Site-Wide Ventilation System

The site-wide ventilation system consists of ten Semi-Active Ventilation Sub-Systems (SAVS) that were installed in ten regions of the WAC site. Each SAVS sub-system consists of a cluster of ventilation wells, venting pipes, and a Venturi-Tube Ejection System (VES). The number of wells in clusters vary between 8-16. The wells are extended from one foot bgl to the depth of the landfill with 9-12 feet of screen. The advantage of a VES is that it will facilitate the venting of the LFG in the soil beneath the site without promoting the infiltration of atmospheric air into the landfill, which might cause a subsurface fire.

The SAVS ventilation wells are installed in the parking areas or driveways at a well spacing distance of approximately 30 feet in the areas with a higher LFG concentration, and a well spacing distance of 45 feet in the areas of a lower LFG concentration. These well spacings were calculated based on the results of the site-wide extraction tests performed under the CARP. The ventilation wells were placed at a distance of 30 feet corresponding to a radius of influence of 15 feet (1/4 of the estimated radius of influence.)

The ventilation wells are installed in a trench approximately 18 inches wide and 12 inches deep (see Figure SK-V-2, Appendix B, and the photos in Appendix H). The two inch diameter wells each consisting of 9-12 feet of screen and 4-5 feet of casing are installed in an 8 inch diameter bore hole, with a silicon sand filter pack extending to two feet above the screen. The rest of the hole is filled with bentonite and concrete. The wells are connected to a main pipe installed in the trench and connected to a vertical vent pipe leading to the VES. The technical specification of the Venturi units which are used in the VES, and the air supply source are presented in Appendix F.

The pipes connecting the wells to the main pipe and the main pipe connected to the vertical vent, are sloped at a gradient of 1/4 to 1/8 inch per foot respectively, to allow the condensation formed in the pipes to return to the wells and prevent hydraulic blocks (see Figure SK-V-3, Appendix B). The vertical vent pipes and the VES are installed inside a 30 foot high decorative light post. The air flow necessary for the operation of the SAVS is supplied by the blower/extraction units (see Schematic Figure SA-V-2, Appendix B). The site-wide ventilation system consisting of ten SAVS in ten regions is presented in Figure SV-V-1, Appendix B, and photos in Appendix H.

The tests performed during the system evaluation showed that the Venturi Ejection System generates a negative pressure, equivalent to 2-3 inches column of water in the main pipe of the SAVS. This negative pressure is sufficient to effectively assist the ventilation of the methane gas generated in the soil without causing air internment. During the period of operation, the VES makes a low decibel humming noise which is not usually distinguishable from the background noise. A Flame Arrestor is installed at the end of the vertical ventilation exhaust manifold on top of the decorative light post. The VES assembly before installation in concrete foundation of the decorative light post is shown in the photos presented in Appendix H.

The Flame Arrestor is a safety device installed to prevent the reverse motion of the flame through the ventilation pipe, in case the exhaust gas is ignited by lightening during a thunder storm.

The conceptual design of the above system is presented in Figure SA-V-2, and the construction of the trenches, the layout of the main SAVS pipes, and the area covered by the system are shown in Figure SA-V1 in Appendix B. The details of the actual system construction are presented in the photographs in Appendix H.

The system testing, evaluation, and adjustment was performed after the installation of the SAVS, AGES, and the vertical ventilation exhaust manifolds inside the decorative light posts were completed. The SAVS was adjusted to produce a negative pressure equivalent to two column inches of water(2"CW) at the far end of the main ventilation pipe. This was accomplished by adjusting the inlet flow of the Venturi Ejection System. This draft that is established in the main ventilation pipe as result of the operation of VES, will help to remove the methane gas generated in the body of the landfill, without promoting the air internment. This will eliminate the possibility of underground fire which is the result of air internment due to higher negative ventilation pressure.

The reduction of the soil methane gas level in the body of the landfill as the result of the SAVS operation was also tested. For this test the methane gas concentration in a series of gas monitoring wells that are scattered over the site were measured. The gas concentration levels in these wells in the start of testing (without any prior ventilation) varied between a maximum of 24% by volume in well SVW-20 to less than 1% in several wells. The maximum time of operation of the SAVS for reduction of gas concentration to less than LEL (approximately 5% by volume) was six hours. The subsequent testing that was performed in four weeks intervals showed that 4 hour of operation of the SAVS was more than sufficient to keep the soil gas concentration below the LEL in the region of the highest soil gas concentration. It is evident that prolonged and continuous operation of this system for 2 hours a day will keep the soil gas levels under the acceptable regulatory standards without causing air internment or over evaporation of the soil moisture, which is the cause of differential settlement in most landfill sites. The system's operational protocol will be adjusted if necessary, after the initial 90 days of system operation.

Site-Wide Active Gas Extraction System

The site-wide gas extraction system consists of four zonal Active Gas Extraction Systems (AGES) which together they cover the under-slab spaces of all the buildings on the site. The under-slab methane gas survey indicated that only 10 buildings contained methane gas in their under-slab space (see SP-1, Appendix C). However, due to the unpredictability and dynamic nature of the methane gas migration, the health and safety concerns required that all buildings be equipped with an AGES. This will provide protection against the possibility of a change in gas migration or accumulation patterns due to a natural cause, or as a result of operation of the SAVS and AGES units.

The buildings of the site were divided into four groups in four zones of the site. An AGES was installed at a centrally located spot in each zone and will provide gas extraction for the under-slab spaces of the group of buildings located in that zone. Buildings 1-4 are included in Zone 1, buildings 5-11 are in Zone 2, buildings 12-18 are in Zone 3, and buildings 19-25 are in Zone 4 (see Site Plan SP-1, Appendix C).

The under-slab space of each building, is equipped with 12-36 vertical gas collection /fresh air supply tubes or wells. The preliminary design of the AGES called for horizontal collection tubes that would be designed and installed in such a way that they run parallel along the width of the under-slab and would cover the whole under-slab space. However, preliminary influence tests showed that the horizontal collection tubes would not perform as effectively as vertical short length collection wells. The number of wells in each building is a function of the size of the under-slab space, and the under-slab LFG concentration in that building.

An extraction well consists of a hole which is drilled through the slab concrete and the under-slab soil to the depth of 18-24 inches below the slab level. A tube 16-18 inches long, which is

perforated for the last 10-12 inches of length and capped at the bottom is placed in the middle of the hole and the annulus space around the tube is packed with silicon sand. The top part of the hole in the slab and around the tube is sealed with concrete. The top end of the tube is connected to the gas extraction unit through the branch piping and the main collection pipe (see Figure SK-E-2, Appendix C). A Moisture Trap is also installed at the end of each main pipe that comes out of each building. The moisture trap is also equipped with a gate valve and a vacuum gauge for flow and pressure adjustment (see the sketch in Appendix C).

The operation of the gas extraction unit creates a vacuum, and therefore, applies a negative pressure on the gas collection tubes in the center of the gas extraction wells resulting in the movement of the gas from the under-slab space into the extraction wells and gas collection tubes, and through the AGES piping system to the outside space. This negative pressure will cause all the LFG collected in the under-slab space to move out. However, the reduction of the pressure in the under-slab space might have a side effect. This pressure drop will cause over-evaporation of the soil moisture, which will in turn disturb the building-soil-hydrostatic balance. This will result in differential settlement of the under-slab soil and associated structural problems.

To overcome the above mentioned problem, the AGES system was designed to reduce the magnitude of the pressure drop in the under-slab space, while providing an effective flow or active ventilation that will capture and transport out every molecule of LFG that is migrated into the under-slab space. To accomplish this task, one out of every three extraction wells is converted to a fresh air supply source by directly connecting the center tube to the outside air. The application of the negative pressure by the gas extraction unit on the collection tubes of the extraction wells, will cause the atmospheric air to enter the under-slab space from the air supply source, and flow towards the extraction wells (see Figure SK-E-4, Appendix C). The establishment of this flow pattern will prevent the LFG from accumulating in the under-slab space, while the soil moisture extraction problem will be reduced drastically. The location of gas extraction and the fresh air

supply tubes are shown in Building Plans presented in Appendix C. The monitoring and adjustment of the under-slab moisture conditions is addressed in the "Operation and Maintenance" section of this report.

The collection tubes of the gas extraction wells are connected to branch pipes for each building, which are connected to the gas collection mains through a gate valve and a moisture trap. The four LFG extraction units in four zones, each consists of an extraction/blower unit, which together with its moisture trap and electrical and system controls are placed in an enclosure. The inlet of the extraction unit is connected to the collection main, while the blower exhaust is connected to the piping system that is apportioned to the size and number of the SAVS in each zone, to provide the air supply for the VES units (see Figure SK-E-3, Appendix C). The actual (as built) arrangement of the gas extraction system, and other details of the site-wide LFG extraction system are presented in Figure SK-E-1, in Appendix C. As presented in this Figure, the gas extraction wells shown as full circles are connected to the branch pipes, while the air supply tubes are presented as hollow circles. The photographs in Appendix H show the main gas extraction and ventilation piping. A conductive wire is running along these pipes in trenches. This wire will help to locate these piping and trenches during future construction activities.

The extraction units in Zones 1-4 each incorporate a Hoffman Seven Stage Series T Exhauster, equipped with a 7.5 HP explosion proof electric motor, and featuring gas construction. The extraction units are mounted on a steel skid frame, and are placed inside an enclosed lockable structure (see photographs in Appendix H).

The extraction system is equipped with a Flame Arrestor at the inlet to the extraction pump. The Flame Arrestor is a passive device that prevents the propagation of flame from the unprotected side (exhaust side) to the protected side of the system, e.g., the under-slab gas extraction wells and the under-slab space. However, in this system the exhaust side of the extraction units are

connected to the VES of the SAVS, which are already protected by the Flame Arrestors that are installed above the VES on top of the decorative light posts. The technical data and specifications of the gas extraction units and flame arresters are presented in Appendix H.

The photographs of the extraction units and other components of the system are presented in Appendix I.

The system testing, evaluation, and adjustment was performed after the installation of the SAVS, AGES, and the vertical ventilation exhaust manifolds inside the decorative light posts were completed. The AGES system was adjusted to operate at a negative pressure equivalent to nine column inches of water(9"CW) at the end of each main collection pipe (the inlet of each moisture trap). This was accomplished by adjusting the inlet flow of the Gas Extraction Pumps. This negative pressure at the end of the main collection pipe is the minimum suction that can produce a negative pressure of approximately two column inches of water(2"CW) in the fresh air tubes. This magnitude of negative pressure in fresh air tubes is indicative of establishment of an air flow regime in the under-slab space, which is sufficient to carry the methane gas existing in the under-slab space without effecting the soil moisture content in the underlying strata.

The methane gas concentration under the slab of buildings were originally measured during the CARP investigation by drilling a ½" hole through the slab of each first floor apartment. The holes were capped by a removable rubber plug. The same holes were utilized for testing the effectiveness of the AGES. The methane gas was accumulated in the under-slab space for some times before testing. At the time of test, the rubber plug was removed and the measurement probe of a Landtech GM-500 Gas Detector was inserted in the hole. A rubber washer was sealing the probe inside the hole, preventing the outside air to enter into the hole during the measurement. The under-slab methane gas concentrations varied between 63% by volume to 0.throughout the site. The maximum was in Building 18. The holes were capped and sealed by the rubber plug

after the measurement was completed. The AGES for each zone was set by adjusting the inlet flow after it was started and reached normal operating condition. The AGES was stopped after each ½ hour of operation for measurement of the under-slab methane gas concentration. The tests in Building 18 indicated that the under-slab methane gas concentration dropped rapidly in the first ½ hour of operation, and it was 0. after the third ½ hour, indicating that the system operation at the rate of 2 hours per day is sufficient to keep the under-slab space free of methane gas.

However, if the duration of the system operation is divided to several intervals, it will not only achieve the main objective of the AGES operation, i.e., the extraction of the methane gas from the under-slab space, but it will provide additional advantages, such as minimizing the wear and tear in the Extraction Pump, reducing the moisture extraction, and dealing with instantaneous surge in methane gas generation due to the rain. For this purpose the AGES system is set to operate in three intervals of 45 minutes during each day (once every 8 hours).

The system's operational protocol will be adjusted if necessary, after the initial 90 days of operation. The commencement of the system operation is the approval date of this Corrective Action Completion Report. At the end of the first quarter, the results of the weekly under-slab gas concentration measurements, and the site soil gas concentration measurements, will be compiled and will be reported to TNRCC, VCP. Based on the results of this report, the operational protocol of the systems will be adjusted if necessary.

Both the daily operational interval of the system, and the site-wide test and measurement interval (presently once every week) will be extended or reduced according to the results of the above data compilation.

The total gas remediation system plan is presented in Appendix D.

Surface Drainage Control System

The surface water drainage control has two components in WAC. The first is the control of seepage and flow of contaminated subsurface water (leachate) in the areas of the site with a level differential. One example of this was the seepage of a reddish water that was flowing out of one section of landscaping in front of Building 4 over the asphalt driveway. The metal content of this water was apparent from the reddish color. However, a sample of this water was analyzed for VOC's by EPA Method 8240, and the analysis showed that the only VOC contaminant in this water is Dichlorobenzene at a total concentration of 4.3 ppb. The lowest Action Level based on Health Protection Standards in groundwater for Dichlorobenzene (DCE) is for Dichlorobenzene (1, 4) which is at 75 ~~ppm~~ PPb (well above the present contamination level). The Action Level for other forms of DCE is much higher. Evidence of similar seepage was also seen in other parts of the site, e.g., in front of Buildings 5-8, and 15-18. Although, the VOC contamination of the above leachate sample was not above the Action Level for the Health Protection Standard for this compound, the seepage and flow of this leachate over the surface of the site was eliminated. This was done in compliance with the provisions of the CARP to prevent the human exposure and contact with the landfill soil or leachate.

Correction

To eliminate the flow of the leachate in other areas of the site, the landscape of the site will be modified and a series of shallow drainage ditches will be constructed in front of Buildings 5-8, and 15-18, where the seepage of the leachate occurred in the past. These ditches will be covered by steel grids to allow the rain water to flow into these ditches before it runs through the soil. The building gutters will also be drained into the storm sewer through these ditches where possible. This part of drainage work, although a part of environmental site remediation, by its very nature should be performed during the Site renovation and reconstruction phase, and is the only part that is partially done and not fully completed at this time.

The second component of the surface drainage is the prevention of the impingement of the surface water from the adjacent properties on the body of the landfill under the WAC. There are three up gradient properties to the north, northeast, and east of the site that can impact the landfill. These properties are: The Promontory Point Apartments (PPAC) on the east, a parcel of land containing ponds and the paved and asphalt surface along the road in front and to the east of the northeast gate called Center Plaza, and the closed landfill to the north of the site.

A large volume of surface drainage water from PPAC's north and northwest parking areas with a very large asphalt and concrete surface, flows along a rather steep gradient to a drainage channel that runs on and along the common border of WAC and PPAC. This drainage channel was designed to drain into a storage pond on the south side of the property and eventually drain into Little Walnut Creek. During the past few years the drainage channel had become inefficient in conveying the surface water runoff. The channel bed was blocked with objects, trash, debris, and vegetation growth, and as a result the storm water runoff would flow into the ground and impinge over the landfill body. During the period of the implementation of the CARP and RAWP, the owners of PPAC, the Insignia Management Group (IMG), were contacted, and they agreed to reconstruct the channel to manage the surface water runoff from PPAC. The reconstruction of the channel was completed in August 1996. However, in absence of a proper flow control mechanism, during the storm and rain showers, the fast flowing water would wash the clay liner on the side of drainage ditch opposite to the entrance point of the water flow. In order to correct this problem, the IMG were advised to put cement blocks on the bottom and side of drainage ditch opposite to the entrance of the flow. The overall work and improvements of this surface drainage channel was approved by the TNRCC.

The property located on the northeast of the site that extends from the northwest of the PPAC to the Center Plaza, contains two ponds. The smaller pond that is located adjacent to WAC is dry at present time. However, before the execution of the approved remedial plan, during the

rain and storm periods, a large volume of water was collected in this pond, which directly impinged upon the landfill under the north part of WAC, and after saturating the landfill, it would seep out from the west boundary of the site (the east bank of the creek) as a reddish leachate . The owners of this property were contacted during the CARP implementation period. However, they seemed unwilling/incapable of effectuating any plans to modify their property to either prevent the water from being collected in the pond, or to prevent the water impact on the landfill.

Review of the survey plans showed that a small portion of the west side of this pond is actually a part of the WAC property (the fence is installed approximately 10 feet inside the WAC property). Therefore, a drainage plan was designed and implemented from the WAC property to drain the water from this pond and prevent the impact on the landfill. This plan consisted of two parts:

1. Construction of a concrete storm water inlet structure containing a removable leaf , brush, and debris screen in the deepest part of the pond (in the WAC property). This inlet structure is shown in the photographs in Appendix H.

2. Installation of an Eight inch underground drain pipe connecting the concrete inlet structure to the site storm sewer system. The installation of this drain system will prevent the storm and rain water from collecting inside the pond and penetrating into the body of the landfill. The details of the surface and pond drainage system are presented in Figure SD-1-1, and the original "Site Grading & Detention Plan", in Appendix E, and photographs in Appendix H.

There is a wide street and a large paved circular area (Center Plaza) in front of the north entrance of the WAC. This street which extends from the north gate of the WAC to the Cross Park Drive, has a very steep gradient towards the site of the WAC. During the storm and rain periods, the

water that runs over this large surface enters the WAC site and part of it flows on the north side of the property behind the Buildings 25, 24, and part of Building 23. This run-off was flooding the back porch of these buildings during storm and rain shower, and would impinge on the body of the landfill along this area, causing a reddish-brown leachate to emerge from under these buildings and flow over the surface of WAC site.

Two French Drain systems were installed on the north boundary of the site behind and in front of the Buildings 25, 24, and 23. These drain systems will prevent the rain water to enter the body of the landfill to promote methane gas and leachate generation. The effect of the installation of these drainage systems is readily observed at the site of WAC, as several leachate flow points on the eastern bank of the Little Walnut Creek that were discharging reddish-brown leachate in the past, dried out, and no leachate is discharged from these points any more.

The closed landfill on the north, which has a higher surface elevation than the WAC site, is separated from the WAC by a concrete channel that runs all along the north border of WAC. This channel was constructed to prevent the surface water draining from that landfill from running over the WAC property. However, it appears that some times during the rain storm the channel will not be able to contain and drain all the water. This has occasionally resulted in the overflowing and flooding of the north part of WAC in the past. The construction of the above mentioned drain system will help to alleviate this problem in future.

However, there is a continuous flow of leachate from the north adjacent landfill into the above channel, which is discharged into the Little Walnut Creek immediately north of the WAC. The TNRCC and the City of Austin have been informed about this situation. The owners of this property were contacted by the City of Austin and were encouraged to investigate the problem. The owners of WAC are ready to cooperate with the owners of the north landfill property in controlling this leachate flow, and preventing the raw leachate to enter the Creek.

The surface drainage control system includes seven sections of drain channels which are located in the middle section of the Site, in front of apartments 5-8, and 15-18. Although the details of the design of these sections were provided in the general Site Drainage Plan, the actual construction of these sections should take place simultaneously and in conjunction with the site and building construction and renovation work.

Gas Detector and Alarm System

Although the installation and operation of the SAVS (as indicated above) has drastically reduced, if not totally eliminated, the possibility of the gas migration into the under-slab spaces, the installation and operation of the site-wide AGES is shown (as indicated above) to prevent the accumulation of the LFG in the under-slab space of the buildings. The combination of these two systems will ensure that no methane gas can migrate through the slabs into the apartment buildings.

However, as an extra safety measure, and in compliance with the requirements of the approved CARP, a landfill (methane) gas detector/alarm will be installed in each of the first floor apartment units of all buildings.

The gas detector/alarm selected for this purpose is a GD-21 combustible gas alarm manufactured by Macurco, Inc. This detector/alarm detects a number of combustible gases such as Natural (methane gas in the LFG), LP, Propane, Butane, and Gasoline Fumes. The detector/alarm is set for a detection limit of 25% LEL(Lower Explosive Limit) for methane gas. According to the manufacturer's recommendation, these alarm units will be installed in the living area of the first floor apartments close to the ceiling.

A technical brochure of the gas detector/alarm is presented in Appendix F. These gas detector alarms will be installed after the site construction and renovation work is completed.

Site Structural Integrity

The assessment of the structural integrity of the buildings and the site of WAC as one of the CARP objectives, has been performed by MGC structural engineering consultants, and Brown Engineers Inc. in

accordance with the City of Austin's ordinances. The Scope of Work recommended by the consultants include:

1. Raising and leveling of any slab whose slope exceeds three inches. This will be accomplished by a lime slurry pressure injection, pier placement, and grouting.
2. Repair of the cracks in the foundation slabs and beams. This will be accomplished by injecting epoxy grout after the leveling is completed.
3. Provide positive drainage for the foundation of the buildings, where the existing drainage is inadequate.
4. Rebuild curb/retaining wall between buildings 14 and 21.
5. Construct a new retaining wall or reinforce the existing one along walnut creek.

The above activities will be performed under supervision of the City of Austin, as part of the site construction and renovation plan required by the City for the issuance of the occupancy permit for the site of WAC.

Operation and Maintenance

The operation and maintenance of the remedial systems installed at the site is easy and relatively trouble-free. The SAVS consists of a cluster of ventilation wells connected through the pipes to a vertical ventilation pipe and VES. The flow of air through the VES will create a relatively low vacuum which will assist the motion of the LFG through the soil and out of ventilation wells. The SAVS and VES have no machinery and contain no moving parts. The air supply necessary for the operation of the VES is the extraction air from the AGES that passes through the VES before exhausting to the atmosphere.

The AGES has an extraction/blower unit that provides the necessary vacuum for the motion of the under-slab air/LFG flow. The only machinery used at the site are the extraction/blower units. The Hoffman multi-stage centrifugal exhauster/blowers used in the AGES are dependable, quiet, and trouble-free machines. These machines are practically maintenance free, they can be maintained by the site operation manager that maintains the heating/air conditioning systems. One spare exhauster/blower will be kept at the site to replace any unit that fails in less than one hour. The failed unit will be repaired and will be kept as a spare unit.

The site-wide and pond drainage control system also has no moving parts. The pond water catch will have a bucket type leaf and debris catch that needs to be removed and cleaned periodically.

The gas detector/alarm units are also reliable maintenance free units. A power interruption protection and alternative supply system is under consideration to supplement the units, and keep them operational at the time of a power outage.

Upon completion of the construction and renovation work, when the official commissioning of the WAC remedial systems is commenced, a Site Operations and Maintenance Manual (SOM) will be compiled. The details of operation, periodic inspection, maintenance, and repair of all systems, as well as the emergency procedures, and other environmental safety issues will be provided in the SOM.

The owners of the WAC will be responsible to train the site operation manager of WAC for proper operation and maintenance of the remedial systems, and to ensure that the operation manager has a copy of SOM and a copy is kept in an accessible place in the WAC office.

Conclusions

The installation of the SAVS, the AGES, and the site drainage system completes the execution and implementation of the Response Action Work Plan (RAWP). The primary objectives of the remediation project, i.e., the protection of the human health and environment from the adverse effects of the closed landfill under this site are fully achieved.

The test runs and system evaluations performed at this site indicate that the performance of the remediation system not only meets, but exceeds the design objectives of remediation project. The site is now ready for construction renovation and rehabitation.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

July 13, 2012

Mr. Donald Grissom
Attorney
Grissom & Thompson, LLP
509 W. 12th St.
Austin, Texas 78701

Re: Notice of Use Determinations
Salado at Walnut Creek Partner, LLC
Watersbend Apartments
2104 East Anderson Lane
Austin (Travis County)
Regulated Entity Number: RN101228682
Customer Reference Number: CN603549452
Application Number: 15502

Dear Mr. Grissom:

This letter responds to Salado at Walnut Creek Partner, LLC's Application for Use Determination, received June 3, 2011, pursuant to the Texas Commission on Environmental Quality's (TCEQ) Tax Relief for Pollution Control Property Program for the Watersbend Apartments.

The TCEQ has completed the review for application #15502 and has determined that certain property included in the application is not eligible for a Positive Use Determination. The TCEQ has issued a Positive Use Determination for the eligible property in the application in accordance with Title 30 Texas Administrative Code (TAC) §17.4 and a Negative Use Determination for the ineligible property in accordance with §17.4 and §17.6. The justification for the Negative Use Determination is provided below.

The first floors of the buildings do not control, monitor, or prevent air, water, or land pollution.

In order to request an exemption for the eligible property, the attached Use Determination Certificate and a completed Application for Pollution Control Tax Exemption, Form #50-248 (please see www.cpa.state.tx.us), must be provided to the chief appraiser of the appropriate appraisal district no later than April 30th of the applicable tax year.

Please be advised that a Use Determination may be appealed by the applicant or chief appraiser of the applicable appraisal district. The appeal must be filed with the TCEQ Chief Clerk within 20 days after the receipt of this letter in accordance with 30 TAC §17.25.

If you have questions regarding this letter or need further assistance, please contact Ronald Hatlett of the Tax Relief for Pollution Control Property Program by telephone at (512) 239-6348, by e-mail at ronald.hatlett@tceq.texas.gov, or write to the Texas Commission on Environmental Quality, Tax Relief for Pollution Control Property Program, MC-110, P.O. Box 13087, Austin, Texas 78711-3087.

Sincerely,

Chance Goodin, Team Leader
Stationary Source Programs
Air Quality Division

CG/RH

Enclosure

cc: Chief Appraiser, Travis County Appraisal District, P. O. Box 149012, Austin, Texas 78714

The State of Texas
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Application Number: 15502

County: Travis

USE DETERMINATION CERTIFICATE

This certifies that
Salado at Walnut Creek Partner, LLC
Salado at Walnut Creek Apartments
2104 E. Anderson Lane
Austin, Texas

installed the following property that is used 100 % for pollution control to meet or exceed federal or state regulations:

continuous emission monitors ~~located in each apartment to alert to high methane gas levels~~; 108 wells ~~used to vent methane to a safe area~~; sloping concrete surfaces (including drains, sumps, and piping) ~~installed to collect stormwater; and a~~ fugitive emission monitoring and control system ~~consisting of~~ four Sentry landfill gas monitoring probes; 26 soil vapor monitoring wells; and 15 ~~vapor/~~gas monitoring/vapor ventilation wells.

okay

July 13, 2012

Date

what happened here?

Zack Covar
Executive Director